

Part 1 - Amendments to Specification

1. Replace the paragraph on page 1, lines 4-14, with the following paragraph:

This invention is related to other inventions made by at least one of the inventors herein for Modular Seat Cushion with Interlocking Human Support and Base Portions and Method of Creating a Seat Cushion described in U.S. patent application Serial No. ~~{249.302}~~ 10/628,859, and for Contoured Seat Cushion and Method for Offloading Pressure from Skeletal Bone Prominences and Encouraging Proper Postural Alignment described in U.S. patent application Serial No. ~~{249.303}~~ 10/628,860, and for Apparatus and Method for Evaluating Clearance from a Contoured Seat Cushion described in U.S. patent application Serial No. ~~{249.304}~~ 10/10/628,890, all of which are filed concurrently herewith and all of which are assigned to the assignee of the present invention. The subject matter of these concurrently-filed applications is incorporated herein by reference.

2. Replace the paragraph on page 3, lines 9-21, with the following paragraph:

A new support theory is described in the above-identified U.S. patent application Serial No. ~~{249.303}~~ 10/628,860. This new support theory is based on offloading and isolating pressure and shear forces from the skin surrounding the bony prominences of the user's pelvic area skeletal structure. Applying this support theory involves configuring the support contour with additional clearance, and therefore achieving greater pressure relief, around the ischial tuberosities, the greater trochantors, the coccyx and the sacrum in the pelvic area, while transferring more support to the broader tissue and musculature below the proximal thigh leg bones and at the posterior lateral buttocks. Pressure and shear forces on the skin around the bony prominences is relieved, and pressure is transferred to the broader tissue areas to encourage proper postural alignment. The pressure transferred to the broader tissue areas encourages proper postural alignment, while making offloading possible.

3. Replace the paragraph on page 17, line 21 through page 18, line 9, with the following paragraph:

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Once the foam block 30 containing the negative impression 35 (Fig. 9) is received by the cushion manufacturer, the negative impression 35 may be adjusted in accordance with a desired support theory to provide greater relief or clearance in certain areas and/or enhanced support in other areas, or simply to simulate the captured shape without modifications. Adjusting the captured impression 35 is shown at 84 in Fig. 3 and in Fig. 10. The adjustments to the negative impression to provide greater relief in certain areas are made with the use of a shaping tool 86 to crush certain areas of the negative impression 35 to a greater extent than they have already been crushed by the anatomical shape of the individual. Further crushing of the specific areas will result in a relieved negative impression 35a which provides greater clearance or separation between the anatomical shape and the cushion in those areas. By further crushing the negative impression 35 in selected areas, a greater amount of separation or clearance from the anatomy is established in those areas. The greater clearance may be beneficial in certain areas where there are higher risks of pressure ulcers, such as on the skin which surrounds the ischial tuberosities, the greater trochanters, the coccyx and sacrum, and in the perineal or genital area where the skin may be prone to breakdown due to heat and moisture. This application of one type of support theory is described more completely in the above-identified U.S. patent application Serial No. ~~[249,303]~~ 10/628,860.

4. Replace the paragraph on page 19, line 25 through page 20, line 3, with the following paragraph:

In addition, material is removed from areas 95 of the positive mold 89 to enhance the support characteristics and offloading of bony prominence as described in U.S. patent application Serial No. ~~[249,303]~~ 10/628,860. Removing material from the areas 95 of the mold 89, as shown at 96 in Fig. 3 and in Fig. 13, will create complementary areas of the support contour 33 of the finally-constructed cushion 31 to

protrude or extend more into the anatomy of the user, because removal of the material from the mold 89 in the areas 95 causes more support material to be formed in the completed cushion at those areas. The removal of material from the mold 89 in the areas 95 creates a protrusion-enhanced mold 89a, as shown in Fig. 13.

5. Replace the paragraph on page 21, lines 1-17, with the following paragraph:

The plastic beads are available in different shapes, sizes, densities and materials. For polyethylene spherical beads, the typical diameter is in the range of 0.1875 to 0.25 inches, and the typical density is in the range of 12 grams per liter to 27 grams per liter. As described in the above-referenced U.S. patent application serial No. ~~[249,302]~~ 10/628,859 the cushion may be formed with an upper human interface portion that presents the contour 33 and a lower base portion which completes the cushion. In that case, the size and density of the plastic beads may be different for each of the upper and lower portions, to impart different resiliency characteristics to each different portion. For example, spherical polyethylene beads of approximately 0.25 inches in diameter and 12 grams per liter may be used for the human interface portion and spherical polyethylene beads of approximately 0.1875 inches in diameter and 27 grams per liter may be used for the base portion. In those circumstances, the upper human interface portion will have somewhat more resiliency while the base portion will have somewhat less resiliency. When square or pillow-shaped polypropylene beads are used, the size may be in the range of approximately 0.1875 inches on the side to approximately 0.09375 inches on the side, with a density of approximately 29 grams per liter.